# Department of Environmental Conservation





SPILL PREVENTION & RESPONSE Contaminated Sites Program

> 610 University Avenue Fairbanks, Alaska 99709 Main: 907.451.2143 Fax: 907.451.2155 www.dec.alaska.gov

File No.: 2548.38.001

September 13, 2024

# **Electronic Delivery Only**

Aemon Wetmore Federal Aviation Administration 222 W 7<sup>th</sup> Avenue Box 14 Anchorage, Alaska 99513

# Subject:Decision Document: FAA Farewell StationNo Further Action for the Salmon River Drum Site (TR AOC 1)

Dear Mr. Wetmore,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the Salmon River Drum Site located approximately 35 miles northwest of the FAA Farewell Station and 195 miles northwest of Anchorage. Based on the information provided to date, it has been determined that the contaminant concentrations remaining at the Salmon River Drum Site area of concern (AOC) do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This No Further Action determination is based on the administrative record for the Salmon River Drum Site AOC maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply. The site will remain open in the DEC database until all AOCs are determined cleanup complete.

#### **AOC Name and Location:**

Salmon River Drum Site ~32 Miles ESE of McGrath McGrath, Alaska 99627 62°53'28.6" N, 154°34'33.4" W

**DEC Site Identifiers:** 

File No.: 2548.38.001 Hazard ID.: 1873 Name and Mailing Address of Contact Party: Aemon Wetmore 222 7<sup>th</sup> Avenue Box 14 Anchorage, Alaska 99513

**Regulatory Authority for Determination** 18 Alaska Administrative Code (AAC) 75

#### Site Description and Background

The FAA Farewell Station is located approximately 63 miles east-southeast of McGrath and 160 miles northwest of Anchorage on the southern bank of Sheep Creek. It is accessible year-round via aircraft or via winter trails when snow is present. The station and associated airfield were constructed in 1942 to provide defense support during World War II; however, the property is no longer operated or maintained by the FAA. The landing strip now serves as an emergency landing site and is frequently used by hunters and guides.

The Salmon River Drum Site is located on a native allotment along the Salmon River approximately 35 miles northwest of the FAA Farewell Station. Following a complaint in 1993, the site was inspected. More than 200 drums were observed on the south side of the Salmon River and near the roadhouse on the north side of the river.

#### **Contaminants of Concern**

During the site investigation and cleanup activities at this site, samples were collected from soil, sediment, and surface water and analyzed for diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), extractable petroleum hydrocarbons (EPH), volatile petroleum hydrocarbons (VPH), polychlorinated biphenyls (PCBs), pesticides, herbicides, and metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern (COCs) at this site:

- DRO
- 2-methylnaphthalene

# **Cleanup Levels**

Soil cleanup levels applicable to the site are the 18 AAC 75 Table B1/B2 Human Health/Maximum Allowable cleanup levels for the under 40-inch precipitation zone. DEC has made a determination that the migration to groundwater pathway is incomplete at FAA Farewell due to the depth of groundwater at the site and the fact that groundwater was never encountered.

Contaminant	Table B1/B2 Soil Human Health/ Max Allowable (mg/kg)
DRO	12,500
2-methylnaphthalene	310

Table 1 – A	pproved	Cleanup	Levels
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Notes:

1. mg/kg = milligrams per kilogram

2.  $\mu g/L = micrograms per liter$ 

# **Characterization and Cleanup Activities**

In 1994, 247 empty drums were removed, and three samples were collected from stained soils at the main drum pile, as well as three sediment samples. The samples were analyzed for VOCs, PAHs, pesticides, herbicides, PCBs, total recoverable petroleum hydrocarbons, TPH as diesel, and TPH as gasoline. The sediment samples were also analyzed for metals. Analytical results from the soil samples indicated exceedances of TPH as diesel at concentrations up to 16,000 mg/kg, above the maximum allowable concentration of 12,500 mg/kg; 2-methylnaphthalene was detected at 10 mg/kg, above the migration to groundwater cleanup level of 1.3 mg/kg. Arsenic and chromium were detected exceeding the most

stringent cleanup levels, however the values fell within the range of the background concentrations established for sediment at the site.

In 2010, a visual survey was conducted via helicopter. No signs of distressed vegetation were observed, and one additional drum was noted for future removal.

A remedial investigation was conducted in 2018 during which the historical sample locations were relocated as well as the drum observed during the 2010 survey. The drum was removed, and one soil sample was collected and analyzed for DRO, GRO, RRO, PAHs, and BTEX. One surface water sample was collected and compared to the Table C groundwater cleanup levels.

Eleven additional empty drums were found during the 2018 remedial investigation. Hand auger borings were advanced beneath each drum and six additional borings were advanced at the historical sample locations. No petroleum odors, sheens, or signs of distressed vegetation were observed. Soil samples were collected and analyzed for DRO, GRO, RRO, PAHs, EPH, VPH, and TOC. All analytical results for soil were non-detect or well below the applicable cleanup levels. The surface water sample was analyzed for Table C contaminants rather than TAH and TAqH under 18 AAC 70. The maximum concentration for DRO was well below the Table C cleanup level.

#### **Remaining Contamination**

The maximum concentrations of contaminants remaining at the site are shown in Table 2. These concentrations are all below their respective approved cleanup levels. Sample locations referred to in Table 2 and are shown in the attached Figure 2.

Contaminant	Sample Location	Sample ID	Date Sampled	Soil (mg/kg) /
				Surface Water (ug/L)
DRO	Soil Beneath	FWL18SS-004-SR	7/17/2018	39 mg/kg
	Drum 4			
DRO	Surface Water at	FWL18-SW001-SR	7/17/2018	230 ug/L
	Drum 1			

Table 2 – Maximum Remaining Concentration in Soil at the Salmon River Drum Site

Notes:

1. mg/kg = milligrams per kilogram

2. ND = non-detect

3.  $\mu g/L = micrograms per liter$ 

# **Cumulative Risk Assessment**

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index (HI) of 1 across all exposure pathways.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

# **Exposure Pathway Evaluation**

Following investigation and cleanup at the AOC, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which

contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Pathway	Result	Explanation	
Surface Soil Contact	De Minimis	Concentrations remaining in surface soil (0-2	
		feet below ground surface) are below the	
		migration to groundwater cleanup levels.	
Subsurface Soil Contact	Pathway Incomplete	The source of contamination was empty fuel	
		and oil drums abandoned at the site. All	
		surface soil samples were below migration to	
		groundwater cleanup levels. It is not expected	
		that subsurface soil was impacted by the	
		release.	
Inhalation – Outdoor	Pathway Incomplete	Volatile COCs were not detected during the	
Air		most recent sampling event.	
Inhalation – Indoor Air	Pathway Incomplete	Volatile COCs were not detected during the	
(Vapor Intrusion)		most recent sampling event.	
Groundwater Ingestion	Pathway Incomplete	DEC has made a determination that the	
		migration to groundwater pathway is	
		incomplete at FAA Farewell. A surface water	
		sample had concentrations below the 18 AAC	
		75 Table C groundwater cleanup levels.	
Surface Water Ingestion	De Minimis	All surface water sample results were below	
		the Table C groundwater cleanup levels.	
Wild and Farmed Foods	Pathway Incomplete	The contaminants of concern do not have the	
Ingestion		potential to bioaccumulate in plants or	
		animals.	
Exposure to Ecological	Pathway Incomplete	There are no concerns about adverse impacts	
Receptors		to ecological receptors.	

	Table 3 –	<b>Exposure</b>	Pathway	<b>Evaluation</b>
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Notes:

1. "De Minimis Exposure" means that, in DEC's judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.

2. "Pathway Incomplete" means that, in DEC's judgment, the contamination has no potential to contact receptors.

# **DEC Decision**

Soil and groundwater contamination at the Salmon River Drum Site AOC have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. DEC approval is required for movement and disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Since the cleanup at this AOC met the most stringent cleanup levels of 18 AAC 75.341, Tables B1 and B2 and 18 AAC 75.345, Table C, this letter will serve as your approval for future movement and disposal of soil associated with this release.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. If,

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in the future, groundwater from this site is to be used for other purposes, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

#### **Informal Reviews and Adjudicatory Hearings**

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 - 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page <u>https://dec.alaska.gov/commish/review-guidance/</u> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have any questions about this no further action decision, please contact me at (907) 451-1682 or via email at <u>sophia.bracio@alaska.gov</u>.

Sincerely,

Sophia K. Bracio

Sophia K. Bracio Environmental Program Specialist

- Enclosure(s): Figure 1 Salmon River Drum Site and Farewell FAA Station Locations (Brice 2020) Figure 2 – Salmon River Drum Site (TR AOC 1) 2018 Hand Auger Locations and Select Sample Results (Brice 2020)
- cc, via email: Jamie McKellar, DEC







SALMON RIVER DRUM SITE (TR AOC 1) 2018 HAND AUGER LOCATIONS AND SELECT SAMPLE RESULTS

**IDITAROD TRAIL** 

mary
<b>DRO</b> Concentration
(mg/kg)
ND [4.2]
ND [2.5]
ND [4.5]
39
NR
ND [5.3]
ND [4.8]
ND [4.9]
5.2 J
ND [4.8]
6.3 J
27
5.8 J
ND [4.1]
5.9 J
5.4 J
9.8 J
250

-	Legend:			
-	[]	Detection Limi	t	
	DRO	Diesel Range	Organics	
	ft bgs	Feet Below Gr	ound Surface	
	J(±)	Estimated Res High/Low/Unc	Estimated Result; Value Biased High/Low/Uncertain	
	mg/kg	Milligrams Per	Kilogram	
	NR	Not Reported		
	ND	Non-Detect		
-	mg/L	Milligrams Per Liter		
	•	Surface Water Sample Locati	and Soil on	
2		Soil Sample Lo	ocation	
		BUILDING		
	D/ _FI	ATE: EBRUARY 2019	FIGURE:	
	PI	ROJECT No.: 061801	26	
	DI	RAWN:		

K.T.